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Indoor Distribution Test Report

Relevant Standards
IES LM-79-2008
ANSI C82.77-2002

Prepared For
Scientific Lighting Products, Div of Koller Enterprises

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Fenton, MO 63026-5733
United States

Catalog Number
CT2-2L4 1R (Clear CIRA Lens)

Order Number
11161897
Test Number
1216840

Test Date

2016-03-02

Prepared By

Derek Smarr, Technician

Approved By

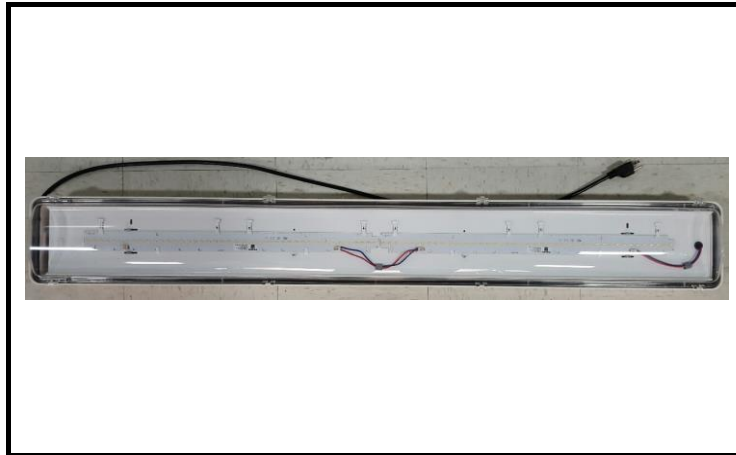
Timothy Wagner, Project Handler

The results contained in this report pertain only to the tested sample.
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Luminaire Description: White plastic housing, clear lens enclosure
Lamp: 88 white LEDs
Mounting: Pendant
Ballast/Driver: One Philips Xitanium XI075C200V054BPT1

Luminaire



Luminaire Characteristics

Luminous Length: 51.00 in.
Luminous Width: 6.000 in.
Luminous Height: 2.00 in.

Summary of Results

Total Luminaire Output: 8310 Lumens
Luminaire Efficacy: 116.4 lm/w
Maximum Candela: 2867 Candela

Electrical Data

Test Temperature: 25.1 °C
Voltage: 120.0 VAC
Current: 0.5963 A
Power: 71.39 W
Power Factor: 0.998
Frequency: 60 Hz
Current THD: 5.07 %

Laboratory results may not be representative of field performance
Ballast factors have not been applied



Distribution - Goniophotometer

Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.1 °C	120.0 VAC	0.5963 A	71.39 W	0.998	60 Hz	5.07 %

Summary of Results

Spacing Criteria

0-180: 1.32

90-270: 1.32

Total Lumen Output:

8310 Lumens

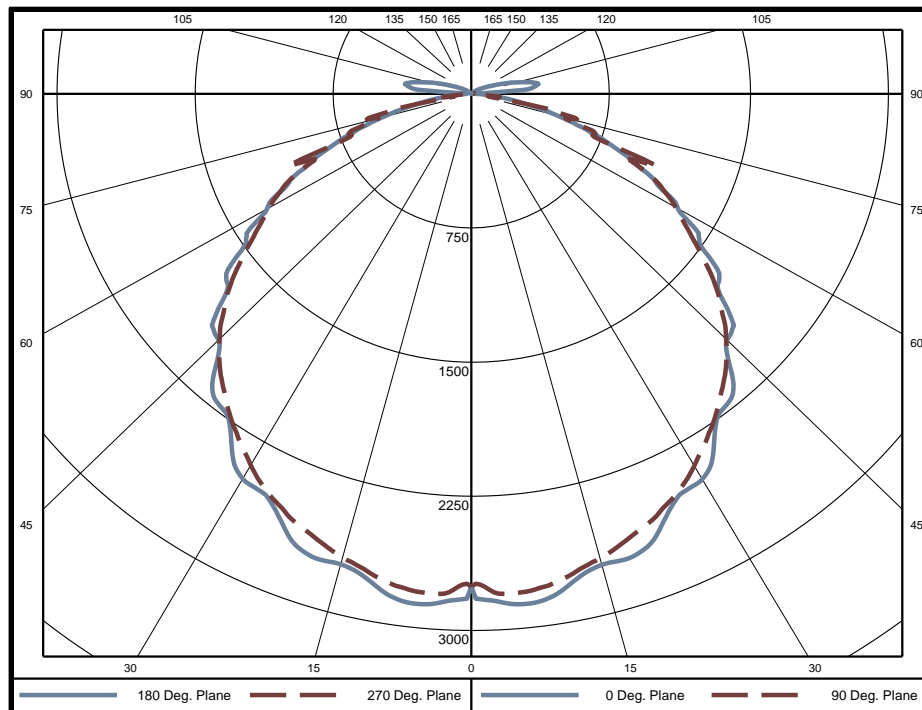
Luminaire Efficacy:

116.4 lm/w

Maximum Candela:

2867 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	66.9	0.8%	60-65	560.1	6.7%	120-125	4.0	0.0%
5-10	200.6	2.4%	65-70	462.9	5.6%	125-130	2.4	0.0%
10-15	325.9	3.9%	70-75	336.4	4.0%	130-135	1.3	0.0%
15-20	441.6	5.3%	75-80	218.1	2.6%	135-140	1.0	0.0%
20-25	543.6	6.5%	80-85	87.5	1.1%	140-145	1.0	0.0%
25-30	627.9	7.6%	85-90	27.1	0.3%	145-150	0.9	0.0%
30-35	693.4	8.3%	90-95	18.3	0.2%	150-155	0.8	0.0%
35-40	735.5	8.9%	95-100	32.1	0.4%	155-160	0.7	0.0%
40-45	754.1	9.1%	100-105	25.6	0.3%	160-165	0.6	0.0%
45-50	748.0	9.0%	105-110	17.0	0.2%	165-170	0.4	0.0%
50-55	712.4	8.6%	110-115	10.3	0.1%	170-175	0.3	0.0%
55-60	644.9	7.8%	115-120	6.4	0.1%	175-180	0.1	0.0%

Zone	Lumens	% of Luminaire
0-40	3635	43.7%
0-60	6495	78.2%
0-90	8187	98.5%
90-180	123	1.5%



Candela Tabulation
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
	0	2754	2754	2754	2754	2754	2754	2754	2754	2754	2754	2754	2754	2754	2754	2754
	5	2865	2822	2803	2806	2802	2806	2803	2822	2865	2822	2803	2806	2802	2806	2803
	10	2819	2806	2775	2768	2761	2768	2775	2806	2819	2806	2775	2768	2761	2768	2775
	15	2725	2759	2705	2690	2688	2690	2705	2759	2725	2759	2705	2690	2688	2690	2705
	20	2712	2681	2620	2611	2607	2611	2620	2681	2712	2681	2620	2611	2607	2611	2620
	25	2548	2577	2520	2519	2518	2519	2520	2577	2548	2577	2520	2519	2518	2519	2520
	30	2487	2444	2412	2409	2402	2409	2412	2444	2487	2444	2412	2409	2402	2409	2412
	35	2289	2302	2278	2266	2263	2266	2278	2302	2289	2302	2278	2266	2263	2266	2278
	40	2189	2135	2118	2112	2112	2112	2118	2135	2189	2135	2118	2112	2112	2112	2118
	45	1947	1956	1938	1946	1941	1946	1938	1956	1947	1956	1938	1946	1941	1946	1938
	50	1749	1753	1747	1737	1735	1737	1747	1753	1749	1753	1747	1737	1735	1737	1747
	55	1531	1537	1535	1499	1484	1499	1535	1537	1531	1537	1535	1499	1484	1499	1535
	60	1284	1280	1279	1251	1271	1251	1279	1280	1284	1280	1279	1251	1271	1251	1279
	65	1039	1026	999	1054	1049	1054	999	1026	1039	1026	999	1054	1049	1054	999
	70	764	766	789	919	705	919	789	766	764	766	789	919	705	919	789
	75	495	468	523	526	524	526	523	468	495	468	523	526	524	526	523
	80	266	274	349	264	140	264	349	274	266	274	349	264	140	264	349
	85	100	140	85	69	78	69	85	140	100	140	85	69	78	69	85
	90	24	21	29	32	37	32	29	21	24	21	29	32	37	32	29
	95	312	15	22	23	29	23	22	15	312	15	22	23	29	23	22
	100	352	8	18	15	14	15	18	8	352	8	18	15	14	15	18
	105	245	5	11	13	13	13	11	5	245	5	11	13	13	13	11
	110	155	3	7	10	11	10	7	3	155	3	7	10	11	10	7
	115	91	2	5	7	8	7	5	2	91	2	5	7	8	7	5
	120	56	2	3	5	6	5	3	2	56	2	3	5	6	5	3
	125	33	2	2	4	5	4	2	2	33	2	2	4	5	4	2
	130	15	2	2	3	3	3	2	2	15	2	2	3	3	3	2
	135	3	3	2	2	3	2	2	3	3	3	2	2	3	2	2
	140	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	145	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	150	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	155	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	160	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	165	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	170	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	175	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	180	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4

Average Luminance (cd/m²)
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	13950	13950
	45	13420	10430
	55	12800	8881
	65	11480	7334
	75	8444	4566
	85	3996	1234



Utilization of Lumens - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%

Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																	
0	9864	9864	9864	9864	9620	9620	9620	9620	9165	9165	9165	8749	8749	8749	8367	8367	8367	8187
1	9020	8628	8276	7959	8781	8427	8108	7818	8051	7789	7548	7706	7493	7295	7388	7217	7058	6876
2	8197	7514	6948	6473	7967	7346	6827	6386	7031	6595	6218	6740	6377	6058	6472	6172	5905	5719
3	7466	6589	5910	5370	7249	6448	5819	5313	6182	5645	5203	5936	5480	5096	5708	5323	4993	4806
4	6829	5829	5097	4539	6627	5710	5028	4500	5485	4893	4424	5277	4765	4350	5082	4642	4278	4093
5	6274	5201	4452	3898	6089	5100	4397	3871	4909	4291	3816	4732	4189	3763	4566	4092	3711	3531
6	5789	4677	3930	3395	5621	4591	3887	3375	4428	3801	3334	4276	3719	3295	4133	3641	3256	3081
7	5363	4235	3504	2992	5211	4161	3468	2976	4022	3399	2945	3891	3332	2915	3768	3267	2885	2717
8	4989	3860	3151	2663	4851	3797	3121	2651	3676	3064	2627	3563	3008	2603	3456	2955	2579	2419
9	4658	3540	2855	2392	4533	3485	2830	2382	3380	2782	2363	3281	2735	2344	3188	2690	2325	2171
10	4365	3263	2604	2165	4252	3216	2583	2157	3124	2543	2141	3038	2503	2126	2956	2465	2110	1963

Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	172	5.21
6.00	76.5	7.81
8.00	43.0	10.4
10.0	27.5	13.0
12.0	19.1	15.6
14.0	14.1	18.2
16.0	10.8	20.8

Cone of Light Plot

